

LIST OF MOLLUSCA FROM CHRISTMAS ISLAND, INDIAN OCEAN.

By E. A. SMITH, I.S.O.

Read 14th May, 1909.

(Published by permission of the Trustees of the British Museum.)

THE few species here enumerated were collected by Dr. C. W. Andrews, and have been presented to the British Museum by Sir John Murray, K.C.B. Three appear to be new to science.

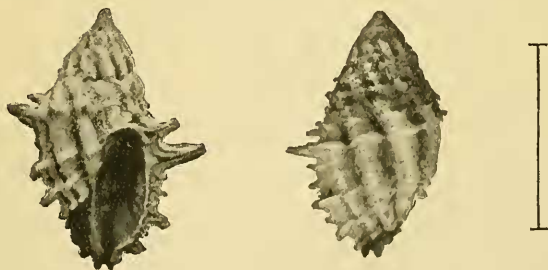
1. LIST OF SPECIES.

- | | |
|---|---|
| 1. <i>Glyphis Singaporensis</i> (Rve.). | 19. <i>Coralliophila neritoidea</i> , jnn. |
| 2. <i>Haliotis</i> , sp. juv. | 20. <i>Comus hebraeus</i> , Linn., and var. <i>vermiculatus</i> , Lamk. |
| 3. <i>Plesiotrochus Fischeri</i> , n.sp. | 21. <i>Smaragdinella viridis</i> (Rang). |
| 4. <i>Truncatella valida</i> , Pfr. | 22. <i>Siphonaria ferruginea</i> , Rve. |
| 5. <i>Anallhea australis</i> (Lamk.). | 23. <i>Arca maculata</i> , Sowb. |
| 6. <i>Mitularia diaphana</i> (Rve.). | 24. <i>Septifer bilocularis</i> (Linn.). |
| 7. <i>Cypræa poraria</i> , Linn. | 25. <i>S. excisus</i> (Wieg.). |
| 8. <i>Cerithium zebra</i> , var. | 26. <i>Libitina oblonga</i> (Linn.). |
| 9. <i>Triphora triticea</i> , Pease. | 27. <i>Tridacna</i> , sp. juv. |
| 10. <i>Planaxis longispira</i> , Smith. | 28. <i>Teredo</i> sp. |
| 11. <i>Peristernia nassatula</i> (Lamk.). | 29. <i>Xylotrya</i> sp. |
| 12. <i>Mitra</i> , sp. juv. | 30. " " |
| 13. <i>M. retusa</i> , Lamk. | 31. <i>Octopus granulatus</i> , Lam. (?). |
| 14. <i>Tritonidea undosa</i> (Linn.). | 32. <i>Ennea (Huttonella) bicolor</i> (Hutton). |
| 15. <i>Nassa papillosa</i> (Linn.). | 33. <i>Kaliella cruda</i> , n.sp. |
| 16. <i>Columbella varians</i> , var. | 34. <i>Opeas subula</i> , Pfr. |
| 17. <i>Sistrum Andrewsii</i> , n.sp. | |
| 18. <i>S. morus</i> (Lamk.). | |

2. DESCRIPTION OF THE NEW SPECIES.

SISTRUM ANDREWSII, n.sp.

Testa fusiformi-ovata, rimata, pallide violacea, spinosa; anfractus circiter 8, oblique planiusculi, longitudinaliter costati et spiraliter lirati, liris supra costas spinosis; anfr. ultimus scriebus spinarum



4-5 cæteris magis conspicuis ornatus, circa rimam porca squamosa rubicunda instructus; apertura angusta, antice contracta, canaliculata, saturate roseo-purpurea; labrum intus incrassatum, tuberculis 4-5 armatum; columella callo roseo-purpureo induta, in medio

prominens, antice tuberculis 2-3 inconspicuis interdum instructa. Long. 25, diam. 12 mm.; apertura cum canali, 14 mm. longa, 4.75 lata.

Operculum fuscum, breviter unguiformis, nucleo extremitatem versus acuminatam, autem haud apicali. Lineæ incrementi extra tenues, nucleum versus confusæ. Superficies inferior densatione lævi margini excurvo parallela, instructa. Reliquiæ superficiei rugosæ, porcis transversis paucis subvalidis instructæ.

This species has in some respects the general features of *S. spinosum*, H. & A. Adams.¹ It differs, however, in the number of rows of spines on the body-whorl. The spines are hollow and pale, and not dark-coloured, the anterior canal is more contracted, and the colour of the aperture is more intensely rosy purple.

The spines of the second series from the suture are the longest and consequently most conspicuous. There is one series above these and usually three below, besides the squamate ridge around the rimation, which is of a rosy-red colour, quite different from the general pale-violet ground-colour of the shell. The spiral liræ covering the entire surface are more or less developed into short prickles upon the costæ. The latter are usually nine in number upon the body-whorl.

PLESIOTROCHUS FISCHERI, n.sp.

Testa parva, trochiformis, in medio carinata, angustissime rimata, alba; spira conica, pagodiformis; anfractus 7 declives, plani, infra fortiter carinati, undique spiraliter striati, ultimus ad peripheriam acute angulatus, infra concentricè striatus, porcis duobus rotundatis instructus, una mediana, altera paulo majori circa rimam sita; apertura irregulariter quadrangularis, alba, antice brevissime canaliculata; columella arcuata, callo albo, lævi, reflexo induta, antice obscure subtruncata; labrum tenue, in medio parum productum. Long. 4, diam. 2.5 mm.; apertura, 1.5 longa, 1.25 lata.

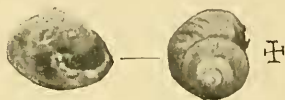


This species resembles *P. Souverbianus*, Fischer, the type of the genus, in form, although perhaps a little higher in proportion to the width. It differs, however, in being minutely rimate, and in the swollen ridge around the perforation. Upon the body-whorl between the peripheral keel and the median ridge are three fine liræ, of which that close to the keel is the thickest. Between the median ridge and the umbilical ridge is a single fine lira.

¹ Reeve, Conch. Icon., vol. iii, *Ricinula*, fig. 12b.

KALIELLA CRUDA, n.sp.

Testa parva, anguste perforata, breviter conica, in medio angulata, tenuis, pellucida, nitida; spira breviter conica, ad apicem obtusa; anfractus $4\frac{1}{2}$ superiores duo convexi, sequentes minus convexiusculi, penult. et ultimus liris 4-5 spiralibus tenuissimis supra ornati, striisque incrementi, tenuibus sculpti, ultimus infra peripheriam acute angulatam convexiusculus, concentricæ microscopicæ striatus; apertura obliqua, angulato-lunaris; peristomium simplex, acutum, margine basali arcuato, columellari superne breviter reflexo. Diam. 3, alt. 2.25 mm.



Hab.—Ross Hill.

These shells may not be mature, but Mr. Andrews informs me that he saw no larger specimens.

3. NOTES ON VARIOUS SPECIES.

TRIPHORA TRITICEA, Pease.

Triphoris triticea, Pease : Proc. Zool. Soc., 1860, p. 433.

Hab.—Sandwich Islands.

To Pease's brief description I add the following further details. Shell minute, fusiformly ovate, tapering at the apex, which is pale brown, the ground-colour of the rest of the shell being dark purplish red, upon which the tubercles are dusky white; whorls 11-12, apical one pale, smooth, globose, three following with two spiral ridges crossed by fine longitudinals forming a kind of cancellation, the points of intersection becoming finely granose upon the three next volutions and more coarsely tuberculated upon the rest of the shell;



the tubercles are ranged in two rows on each whorl, and falling fairly regularly one under another also form longitudinal series; the last whorl has five rows of tubercles, the uppermost the largest, the next with smaller tubercles, and the rest still more finely granose; aperture very small, dark-coloured within; labrum a little thickened and expanded, pale, minutely yet distinctly sinuated at the suture; anterior canal short, oblique, closed. Length 3.5, diam. 1.25 mm.

The suture between the whorls appears to be invisible, but by following the two spiral ridges of the upper whorls down the shell it is seen that the lower whorls have each two rows of tubercles.

PLANAXIS LONGISPIRA, Smith.

Planaxis longispira, Smith: Ann. Mag. Nat. Hist., 1872, vol. ix, p. 45; Sowerby in Reeve's Conch. Icon., vol. xx, pl. iv, fig. 32.

Hab.—Chinese seas (Hanley Coll.).

Three specimens from Christmas Island in fresh condition show that the spire is not always smooth as originally described. Apparently the types from the Hanley collection, which are now in the Museum, were rather worn, and did not show the spiral striation, which is present, at all events, upon the upper whorls. One of the three shells obtained by Mr. Andrews is of the same elongated form as the type, but the others are somewhat shorter. Of the latter, one has three fine red lines upon that body-whorl, whereas the other and the elongated specimen also have but a single line just above the periphery, which passes up the spire.

LIBITINA OBLONGA (Linn.).

Chama oblonga, Linn.: Gmelin, Syst. Nat., vol. vi, p. 3302.

Cypricardia Guinaica, Chemn.: Reeve, Conch. Icon., vol. i, pl. ii, fig. 13.

The single specimen from Christmas Island agrees with *Cypricardia Guinaica* as determined by Reeve. This shell also seems to be the *Chama oblonga* of Linnæus as defined by Gmelin, Chemnitz, Lamarek, and Hanley. The specimens figured by Reeve as *Cy. oblonga* (Conch. Icon., figs. 4a, 4a) belong to a different form.

TEREDO and XYLOTRYA spp.

Two or three species of *Xylotrya*, judging from the pallets, were obtained from piles in Flying Fish Cove. Unfortunately the pallets were separated from the soft parts, and only one shell was obtained attached to an animal, and this was without pallets. Under these circumstances it does not seem advisable to name these species. A species of *Teredo* (animal and pallets only) was found in the same balks of timber. The pallets of one specimen of *Xylotrya* are about 4 inches in length.

ENNEA (HUTTONELLA) BICOLOR (Hutton).

This species occurs in many localities, and doubtless this has led to its being described five times under different names. It is *Pupa Largillierii*, Philippi; *Pupa mellita*, Gould; *Pupa Ceylanica*, Pfeiffer; and *Pupa cafaicola*, Craven.

It has been recorded from many localities in India, also from Burmah, Rangoon, Arakan, Cochin-China, Singapore, Pulo Pinang, Andaman and Nicobar Islands, Ceylon, Réunion, Seychelles, Mauritius, Nossi Bé, Timor, Amboina, Madura, and Sarawak. It also occurs in the West Indies, at Trinidad, St. Croix, St. Thomas, St. Lucia, and Granada, where it has probably been introduced by human agency.